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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,700	06/18/2001	James Worden	SOLECTRIA 00.04	1036

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EXAMINER

WAKS, JOSEPH

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/883,700	WORDEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Joseph Waks	2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____.                                   |

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## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the inverter controlling the frequency of the first AC output to match the frequency of a coupled utility grid as recited in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In line 1, "system is disclosed" is a phrase that can be implied.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: PWM inverter as recited in claim 6.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. **Claims 1-15** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the features of engine controller coupled between the engine and the inverter and the inverter controlling the frequency of the first AC output to match the frequency of a coupled utility grid are not described in the specification and not indicated in the drawings to convey in a clear and concise manner the claimed functions.

In claim 6, the feature of PWM inverter is not supported by the specification.

6. **Claims 1-15** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. For the reasons indicated above one skilled in the art would not be able to make and/or use the invention.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 1-15** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 1, line 7, “an engine controller coupled between the engine and the inverter” is indefinite since it is not clear how the controller is being interconnected between the mechanical engine system and the electrical inverter system without an additional interface equipment in between.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1-5, 7, 12, 13, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **E M R Corbineau (FR 2.228.314)** in view of **Taniguci et al. (JP 08103037)**.

**E M R Corbineau** disclose an engine 1 coupled to an asynchronous generator 13, 18 generating an AC output, an energy storage device 8 for producing a DC output, an engine controller 27, 28 controlling the frequency of the AC output to match the frequency of the coupled utility grid. However, **E M R Corbineau** do not disclose an inverter for converting the DC output of the energy storage device into a second AC output.

**Taniguci et al.** disclose the energy storage device 7 and the inverter 8 for converting the DC output of the energy storage device into a second AC output for the purpose of providing an uninterrupted power supply that is capable of immediate load supply in case of the grid service interruption.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the system as taught by **E M R Corbineau** and to provide the

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inverter for converting the DC output of the energy storage device into a second AC output as taught by **Taniguci** for the purpose of providing an uninterrupted power supply that is capable of immediate load supply in case of the grid service interruption.

Re claims 5, the combined system discloses the claimed invention except for converting the DC output into a three-phase AC output. It would have been an obvious matter of design choice to employ a well known in the art three-phase inverter for the purpose of feeding three-phase loads, since applicant has not disclosed that the three-phase inverter solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the single-phase inverter.

Re claim 12, the combined system includes batteries as the energy storage device. It would have been an obvious matter of design choice to employ a well known in the art ultracapacitor for the purpose of storing the electrical energy, since applicant has not disclosed that the ultracapacitor solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the battery.

**10. Claim 7-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over E M R Corbineau (FR 2.228.314) in view of Taniguci et al. (JP 08103037) as applied to claim 1 and further in view of The SW Series publication pages 1-4 (printed April 3, 2001), and Trace Engineering publication, pages 1-2 (printed September, 2000).**

The features and functions recited in the claims above are disclosed in both publications. It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined system and to utilize the disclosed inverters including the filter, the

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controller with monitor, peak load shaving, generator support mode and other uses that are inherent to the disclosed structure.

***Prior Art***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (703) 308-1676. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

  
JOSEPH WAKS  
PRIMARY PATENT EXAMINER  
TC-2800

JW  
September 3, 2002